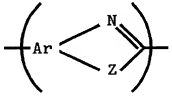
PENDING CLAIMS AS OF NOVEMBER 13, 1995

WHAT IS CLAIMED:

1. A ballistic-resistant article comprising a plurality of polybenzoxazole ~~or polybenzothiazole~~ polymer fibers. **AMENDED UNDER 37 CFR 1.193(b), NOVEMBER 13, 1995**

2. The article of Claim 1 wherein the polybenzoxazole polymer contains a plurality of repeating units which are predominantly AB-mer units represented by the Formula:



wherein:

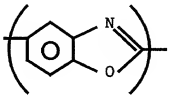
each Ar represents an aromatic group;

each Z is independently an oxygen or a sulfur atom; and

the nitrogen atom and the Z moiety in each azole ring are bonded to adjacent carbon atoms in the aromatic group, such that a five-membered azole ring fused with the aromatic group is formed.

3. The article of Claim 2 wherein each Ar in the AB-mer units is a 1,3,4-phenylene moiety or an analog thereof.

4. The article of Claim 2 wherein each AB-mer unit is independently represented by one of the Formulas selected from:



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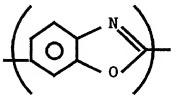

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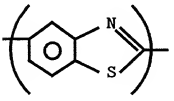

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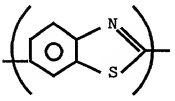

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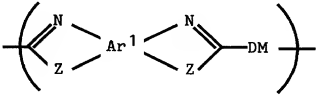
5. The article of Claim 1 wherein the polybenzazole polymer contains a plurality of mer units that are predominantly AA/BB-mer units represented by the Formula:



wherein:

each Ar^1 represents an aromatic group;

each Z is independently an oxygen or a sulfur atom;

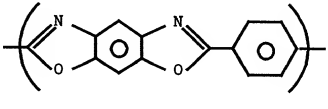
each DM is independently a bond or a divalent organic moiety that does not interfere with the synthesis, fabrication or use of the polymer;

the nitrogen atom and the Z moiety in each azole ring are bonded to adjacent carbon atoms in the aromatic group, such that a five-membered azole ring fused with the aromatic group is formed; and

the azole rings in AA/BB-mer units may be in cis- or trans- position with respect to each other.

6. The article of Claim 5 wherein each DM in the AA/BB-mer units is an aromatic group, and each aromatic group in the AA/BB-mer units contains no more than about 12 carbon atoms.

7. The article of Claim 5 wherein each AA/BB-mer units is independently represented by one of the formulas selected from:



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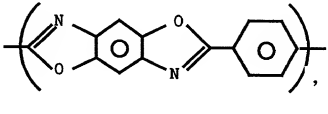

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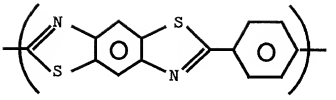

8. The article of Claim 1 comprising yarns containing polybenzazole fibers.

9. The article of Claim 1 comprising polybenzazole fibers woven with a second fiber.

10. The article of Claim 9 wherein the second fiber is cotton, polyester, nylon or rayon.

11. The article of Claim 1 in the form of a laminate comprising a plurality of plies of PBO ~~or PBT~~ fabric and a polymeric matrix. **AMENDED UNDER 37 CFR 1.193(b), NOVEMBER 13, 1995**

12. The article of Claim 11 wherein the polymeric matrix is a thermoplastic polymer, a thermosetting polymer or an elastomeric polymer.

14. The article of Claim 1 in the form of a bulletproof vest, helmet, structural member of helicopters and other military equipment, vehicle panel, briefcase, raincoat, aircraft luggage container, military aircraft seat, gas turbine engine containment ring, military troop shelter, boot sole, overwrapping or overbraiding of telephone electrical lines and aerospace wires and cables, or military electronic shelter.

13. The article of Claim 1 in the form of a consolidated fiber network.

14. The article of Claim 1 in the form of a bulletproof vest, helmet, structural member of helicopters and other military equipment, vehicle panel, briefcase, raincoat, aircraft luggage container, military aircraft seat, gas turbine engine containment ring, military troop shelter, boot sole, overwrapping or overbraiding of telephone electrical lines and aerospace wires and cables, or military electronic shelter.

15. A process for preparing a ballistic-resistant article which comprises:

(a) preparing a yarn comprising high tensile strength fibers of polybenzoxazole (PBO) or polybenzothiazole (PBT) polymer;

(b) weaving the yarn into a tightly woven fabric; and

(c) embedding the fabric in a matrix to form a rigid panel.